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P 69 B. 1

Blister Rust
Effectiveness of Control.

EFFECTIVENESS OF CONTROL PROVED BY
A STUDY OF CHESTERTOWN, NEW YORK.*

Due to the protracted period of incubation of the rust on pines, the effectiveness of Ribes eradication in preventing new pine infection may not be accurately measured by examining trees, until several years after eradication work is performed. To determine the effectiveness of control a study was made in 1923 of a 152-acre demonstration tract at Chestertown, N. Y. This study was made by running a rod-wide strip on a compass line across the area from which Ribes had been eradicated and across the adjoining uneradicated tract. Table III summarizes the result of this study on a per acre basis.

Table III

Comparison of Pine Infection Conditions on a Control Area and Adjacent Unprotected Tract at Chestertown, N.Y., September, 1923.

Area	No. Trees per Acre	% trees Inf.	Year of oldest Inf.	No. of Cankers by Infection Age Class		No. Ribes Seedlings per Acre
				1913 and before	Since 1913	Since 1913
Not eradicated	534	15	1915	8.5	113.0	38.0
Eradicated	319	1	1915	3.5	1.4	9.1

On the area cleared of Ribes in 1913 only one per cent of the trees were diseased, while on the adjoining uneradicated tract, 15% of the stand was infected. From 1915 to 1913 the uneradicated area developed 8.5 cankers per acre against 3.5 canker per acre for the eradicated tract.

*This study was conducted jointly by the New York Conservation Commission and the Bureau of Plant Industry, U.S. Department of Agriculture.

Since 1918, an average of 1.4 new cankers per acre have originated in the eradicated area, while in the unprotected tract 118 new cankers per acre have appeared. A Ribes survey carried on in combination with the pine infection study showed that since 1918, 38 Ribes seedlings per acre had developed on the uneradicated area against 9.1 on the eradicated area or a reduction of about 76%.

The data presented show that the eradication of Ribes has checked the spread of the rust on the control area and protected the pine from commercial damage. Similar studies on other control areas confirm these results. As the average efficiency in Ribes eradication has increased since 1918, the control work as now standardized will afford a higher degree of immediate protection to the pines, than the work on which this study was based. Highly efficient Ribes eradication will materially extend the period of time that may safely elapse before a second eradication becomes necessary.

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Extract from paper on "The Control of White Pine Blister Rust in the Northeastern States" read before American Phytopathological Society, January 1, 1925.

